



GENERAL ORDER

GENERAL ORDER 310.05

Limited Water Supply

EMERGENCY SERVICES BUREAU

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1 APPLICABILITY

2 All personnel.

3 POLICY

4 This General Order provides a framework for operations on incidents involving fire where the water
5 supply is limited. Responding officers are permitted flexibility to successfully accomplish the
6 assigned mission. Initial responding officers that deviate from this General Order must advise
7 through radio transmissions. This could be in areas of the County where hydrants are non-existent or
8 in situations where the domestic water supply is limited or has failed. This policy assists in
9 establishing uninterrupted, expandable water supply using limited water supply tactics.

10 DEFINITIONS

- 11 ➤ **Cistern for Water Supply** - Typically an underground vessel holding water for fire
12 suppression operations, these are part of the Rural Tank program.
- 13
- 14 ➤ **Cistern for Fire Suppression Systems** - Tanks installed by businesses, school systems, and
15 home owners to support fire suppression systems (sprinklers). These cisterns should only be
16 considered for water supply as a last resort.
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- 18 ➤ **Dump Site** - A location for Shuttle apparatus to dump their water. Typically, a portable tank
19 or tanks and a supply pumper will be set up at this location to supply the fire attack.
 - 20 ○ Weather and terrain must be taken into consideration as well as access and traffic
21 matters.
- 22
- 23 ➤ **Fill Site** - A location for Shuttle apparatus to fill with water for transport to the Dump Site.
24 Typically, a pumper will be set up at this location, either at draft or at a hydrant.
25 Consideration should be given to municipal hydrants in the vicinity.
- 26
- 27 ➤ **Incident Commander (IC)** - The Incident Commander is responsible for the overall
28 management of the incident. It is his/her responsibility to prepare the
29 incident objectives that, in turn, will be the foundation upon which subsequent incident
30 action planning will be based.
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- 33 ➤ **Relay Operation** - A process utilizing two or more engines to supply the fire attack engine
- 34 directly from a water source through a supply line.
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- 36 ➤ **Shuttle Operation** - A process utilizing engines and tankers to move water from a specified
- 37 water source to the incident scene.
- 38
- 39 ➤ **Shuttle Route** - A course of travel developed by the Water Supply Officer to maximize safety
- 40 and minimize travel time between the Dump Site and Fill Site.
- 41
- 42 ➤ **Tanker** - Mobile water supply apparatus with minimum of 2000 gallons capacity.
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- 44 ➤ **Tanker Task Force** - A group of units dispatched to support water supply operations
- 45 consisting of two engine companies and three tankers.
- 46
- 47 ➤ **Water Supply Group** - Units assigned the function of assisting with the movement of water
- 48 to support fire attack operations.
- 49
- 50 ➤ **Water Supply Officer (WSO)** - A member assigned by the Incident Commander who
- 51 identifies available water sources, and calculates and coordinates water supply operations.
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- 53 ➤ **Water Supply Unit (WSU)** - Specialized apparatus to supplement water supply.
- 54 ○ **WSU3:** 500G class A pumper, dual 650gpm hydraulic pumps, 1250gpm pump mid-
- 55 ship, 2800' of 5", and all-wheel drive
- 56 ○ **WSU42:** 750G class A pump, all-wheel drive, front mount 1250 gpm, and 1200' of 4"

PROCEDURES

58 GENERAL:

- 59 ● Companies will be assigned specific tasks based upon incident needs.
- 60 ● Assignments will be at the discretion of the Commanding Officer or assigned WSO.
- 61 ● Responding Officers are permitted enough flexibility to successfully accomplish the
- 62 assigned mission. When the initial arriving Company Officer must deviate from this
- 63 General Order, other responding Companies must be advised through radio
- 64 transmissions.
- 65 ● Companies arriving on a scene where supply line or Large Diameter Hose (LDH) is
- 66 deployed should move it to the side of the road, driveway, etc.
- 67 ● Apparatus must not block travel lanes to not impede a possible water Shuttle Operation,
- 68 or the access of other equipment, such as aerial apparatus.
- 69 ● Consider additional alarm assignments if the fire has taken control of the building or
- 70 civilians are trapped.
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72 **In instances of failure within the municipal water system, consideration shall be given to**

73 **supply the fire suppression system of high life capacity structures (assembly, business,**

74 **mercantile, educational, etc.).**



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75 **SIZE UP:**

- 76 • During Incident scene size up, water supply shall be identified. The method, by which
- 77 the water supply will be accomplished, shall be communicated by the
- 78 arriving/responding IC/WSO.
- 79 • Responding officers shall evaluate apparatus positioning and hose lays to facilitate
- 80 water supply to the Fire Ground.

81

82 **COMPANY ASSIGNMENTS:**

83 **First Arriving Engine Company**

- 84 • Communicate that you are the first arriving engine.
- 85 ○ Make provisions for water supply, which *may* be in conjunction with responding
- 86 command officers. Actions may include calling out layout instruction and
- 87 designating a possible water source.
- 88 ○ Designate Nurse Tanker location after size-up.

89

90 **Second Arriving Engine Company**

- 91 • Communicate that you are the second arriving engine.
- 92 • The operator shall support fire attack by pumping the appliance (humat, Siamese, etc.)
- 93 until other water supply determinations are made by the IC, ie. Dump Site operations.
- 94 • For Shuttle Operations:
- 95 ○ Make provisions for water supply by laying supply line if applicable, and giving
- 96 location and length of layout if necessary.
- 97 ○ Position in a manner that allows access for additional units if at all possible.
- 98 • For Relay Operations: position as necessary to initiate the relay.
- 99 ○ Make provisions for water supply by laying supply line, if applicable, and giving
- 100 location of layout if necessary.
- 101 • Position apparatus to assure access for other responding apparatus when possible.
- 102 • Available crew members shall report to the fire ground for assignment.
- 103 • Ensure Initial Rapid Intervention Crew (Initial RIC) is in place.

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105 **Third Arriving Engine**

- 106 • Communicate you are the third arriving engine.
- 107 • For Shuttle Operations:
- 108 ○ Make provisions for the water supply, this may be accomplished by completing
- 109 supply line lays.
- 110 ○ In the event the third engine is not able to complete the lay from the end of a
- 111 driveway or Dump Site, the officer shall notify Command that additional
- 112 resources will be required to accomplish this water supply goal.
- 113 • The operator may support fire attack by pumping the appliance (humat, Siamese, etc.)
- 114 until Dump Site operations are established. Available crew members shall report to the
- 115 fire ground for assignment.
- 116 • For Relay Operations
- 117 ○ Position as necessary to support the relay.
- 118 • Position apparatus to afford apparatus access to the Dump Site.



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- Take assignment as directed by Command.
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121 **Fourth Arriving Engine**

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- Communicate you are the fourth arriving engine.
 - Establish the Dump Site and position the engine to draft from the folding tanks (single lane if possible) and allow tanker and other water supply apparatus access to fill folding tanks.
 - For Relay Operations:
 - Position as necessary to support the relay if needed.
 - Position apparatus to assure scene access to responding apparatus.
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130 **Fifth Arriving Engine**

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- Communicate you are the fifth arriving engine.
 - Unless otherwise assigned by command or WSO, prepare for Fill Site operations.
 - The Fill Site can be established from water supply cisterns, dry hydrants, municipal hydrants and static water sources such as ponds, rivers, creeks and swimming pools.
 - Maintain Fill Site operations with multiple large diameter supply lines to fill apparatus one unit at a time.
 - Cisterns for fire suppression systems should not be primary source for water supply except in the event of extreme circumstances.
 - For Relay Operations:
 - Position as necessary to support relay if needed.
 - Position apparatus to assure access to responding apparatus.
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144 **First Arriving Tanker**

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- Communicate you are the first arriving tanker.
 - Position to supply the fire attack engine as a nurse tanker.
 - Drop folding tanks and additional equipment if Dump Site operations are indicated.
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149 **Second Arriving Tanker**

- 150
- Communicate you are the second arriving tanker.
 - Drop off folding tanks, if needed.
 - Supply water to supply lines, appliance, or nurse tanker to support fire ground operations.
 - Communicate when water is ready.
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156 Additional arriving tankers shall support the water supply mission under the direction of the

157 WSO.

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159 **First Arriving Aerial**

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- Shall position as close as possible to the fire ground. The officer shall take into
- 161 consideration the water supply operation and position to assure access to the scene by
- 162 the water supply units.



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- Access for the first aerial, and potentially others, shall be considered.

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Additional fire ground support units

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- As additional engines and or tankers arrive, consideration should be given to the establishment of a secondary Fill Site.
- As additional apparatus arrive, consideration should be given to the establishment of or supplementation of RIC.
- Ambulances, utilities, and staff vehicles shall position in a manner that does not hinder the water supply operations.

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REFERENCES

173

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- GO 300.07: Incident Command System
- 2018 Water Supply TOG

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SUMMARY OF DOCUMENT CHANGES

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New General Order

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FORMS/ATTACHMENTS

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- None

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APPROVED

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Christine Uhlhorn, Fire EMS Chief
Office of the Fire Chief

Author:

Antonio Concha, Assistant Chief
Emergency Services Bureau